iDyl™ Multiroom Media Server

User Manual v1.9

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Contents

About Your iDyl™ Multiroom Media Server 4
Audio Server 4
Video Server 4
Picture Slideshows Capabilities 4
1. Quick Guide 6
2. Setup and configuration 7
2.1 System Diagram 7
2.2 Physical Connection 8
2.3 Turning on/off the iDyl™ 9
Turning on 9
Turning off 9
Resetting 9
2.4 Network Connectivity 10
Network Configuration – Best Practices 10
2.5 Infra-Red Remote Control 11
Keypad Layout 11
Text Entry 11
IR Remote Keypad Legend 12
3. Main Menu 13
4. Music 14
4.1 Supported Audio File Types 14
4.2 Adding Audio to the iDyl™ 15
Adding Audio via iDyl™ 15
Adding Audio via Desktop Computer 16
Adding MP3 / OGG Audio Files 16
Adding WAV Files 17
4.3 Browsing and Enqueuing Audio 18
Select Audio Type 18
Browse Library 19
4.4 Auto-DJ Mode 20
4.5 Playlist Management 21
Creating a playlist 21
Adding a track to an existing playlist 22
Removing a track from a playlist 23
Deleting a playlist 23
4.6 Controlling Audio 24
4.7 Hotkeys 25
4.8 Macro Keys 26
Available Macro Actions 26
Available Macro Zones 26
5. DVD On-Demand Jukebox 27
5.1 Adding DVDs to the iDyl™ 27
5.1.1 Importing via iDyl™ 27
5.1.2 Import DVD Menu 27
5.2.1 Copying across a LAN 28
5.1.1 DVD Import Service Providers 29
5.2 DVD Storage Capacity 29
5.3 Browsing your DVD Library 29
5.4 DVD Control 30
6. Digital Video Playback 31
6.1 Adding digital video clips to the iDyl™ 31

6.2 Browsing videos 31
6.2 Playing a video 31
7. Slideshows 32
7.1 Creating a Slideshow 32
7.2 Editing and adding to a Slideshow 32
8. Settings 34
8.1 Basic Settings 34
8.2 Audio Settings 36
8.3 Visual Settings 38
8.4 Functional Settings 39
8.5 Manage Networked Folders 40
Monitoring a networked folder from the iDyl 40
Current Shared Folder List 41
8.6 Advanced Settings 42
8.7 Network Settings 43
9. Appendices 44
A: One-time Configuration of RealOne player 44
Glossary 46

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About Your iDyl™ Multiroom Media Server

The iDyl™ Multiroom Media Server is a centralized media server that can store and distribute and playback digital audio, video and pictures upon request within a multi-zoned context.

Inserted into a local area network, users can easily transfer and store their digital media onto the iDyl™, acting as a central repository, and from there access this content from wherever in the house they happen to be.

The iDyl™ can be broken into 3 distinct areas of functionality:

Audio Server

With up to 16 independent audio zones, users can listen to what they want, when and where.

After adding audio to the iDyl via the built-in CD drive or from the family PC, you have the power to access and listen to your enter audio collection instantly, easily, independently from every other room of the house, all from the one device. Easily create playlists, or use the Auto-DJ mode to turn the iDyl into your own personal radio station.

Video Server

You can transfer your digital movie collection from your family PC to the iDyl™ across the network. You can then access and watch these movies from both the iDyl™ and media-content playable networked devices. Coupled with modular components available from DF Solutions called the Video Node™, you can have independent video feeds for every room of the house from the single centralized media repository. You can watch WHAT you want, WHEN you want, WHERE you want.

Picture Slideshows Capabilities

Use the iDyl to store all your digital pictures. Then use the iDyl to create slideshows for playback at family get-togethers or for displaying on digital picture-frames.

In order to integrate an iDyl™ into a complete Multiroom installation, other additional hardware components are required. These include:

- External multi-channel audio amplifier. This will take the line-level audio outputs from the iDyl™, and amplify them before distribution to each audio zone.

- Speaker Cabling.

- In-wall/In-Ceiling/Bookshelf speakers for audio zones.

Optional hardware requirements include:

- WiFi access point. Known as a WAP, this will allow you to control the iDyl™ via WiFi-enabled PCs using the supplied Room Commander software.

- Network Hub. Used in connecting the iDyl™ to your family PC, allowing you to easily add music to the iDyl™, and for performing administration tasks remotely, such as backing up your audio collection on the iDyl™.

- Ethernet Cat5 cabling.

- Microsoft™ compatible PC for adding digital media to iDyl.

- Multiroom Control System: In order to control the iDyl™ from multiple zones, systems such as Crestron, LivingControl and Sonance are used to integrate, control and distribute audio, video and control signals.

It is highly recommended that you read this manual to ensure that the iDyl™ provides you with years of trouble free usage.

1. Quick Guide

The following lists key features available with the iDyl, and points you to the correct page in the manual for further information.

- Adding Audio to the iDyl:

Audio CDs can be inserted into the iDyl for automatic importing, or you can simply drag and drop mp3 / wav / ogg files from your desktop PC across the network to the iDyl. See page 15

- Browsing your audio library:

Easily search your iDyl for the particular album/artist/genre/playlist you want to listen to. See page 18

- Hotkeys:

Assign your favourite audio selections to numbers on your remote-control keypad. Then just one button press can start this selection, for true convenience, without having to have access the TV-display. See page 25

- Macros:

Your remote control has 4-coloured buttons. Each of these can be assigned to perform customized commands, in order to make the iDyl operate the way that you want it to. See page 26

- Playlists:

Easily create personalised lists of your favourite tracks, with the ability then to listen to them in any audio zone. See page 21

2. Setup and configuration

2.1 System Diagram

Note: This manual does not discuss integration with 3rd-party control systems. Please contact your dealer for relevant documentation.

This document will assume the user plans to use the following control methods:

- I.R. remote control (via TV-interface)
- WiFi-enabled PDA (using DFSolutions' Room Commander software)
- Desktop PC (for control / adding audio to iDyl / backing up iDyl.

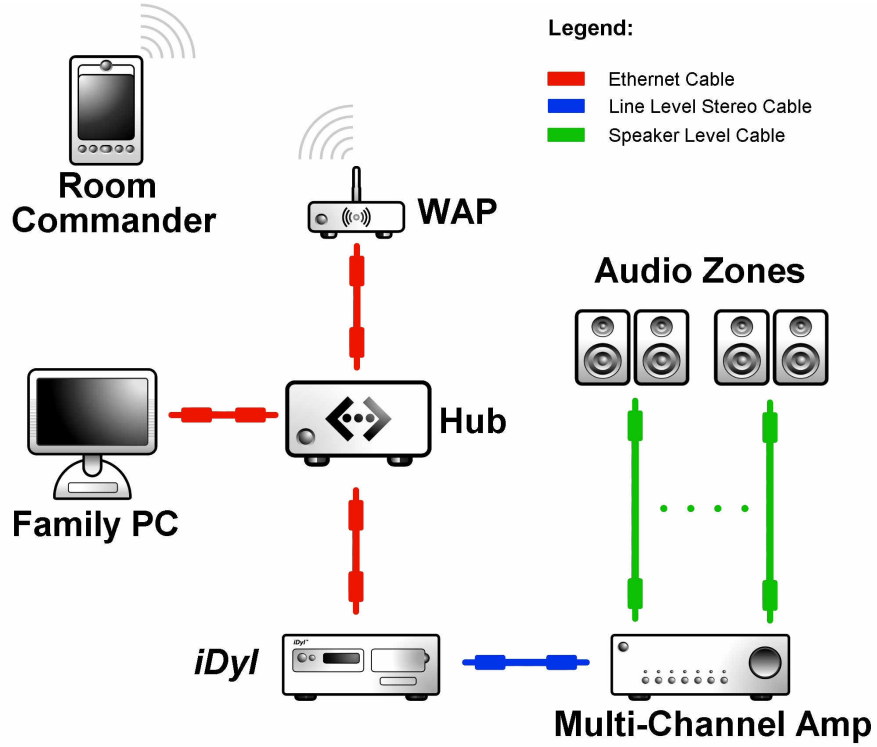

Fig. 1(a): Basic installation diagram

2.2 Physical Connection

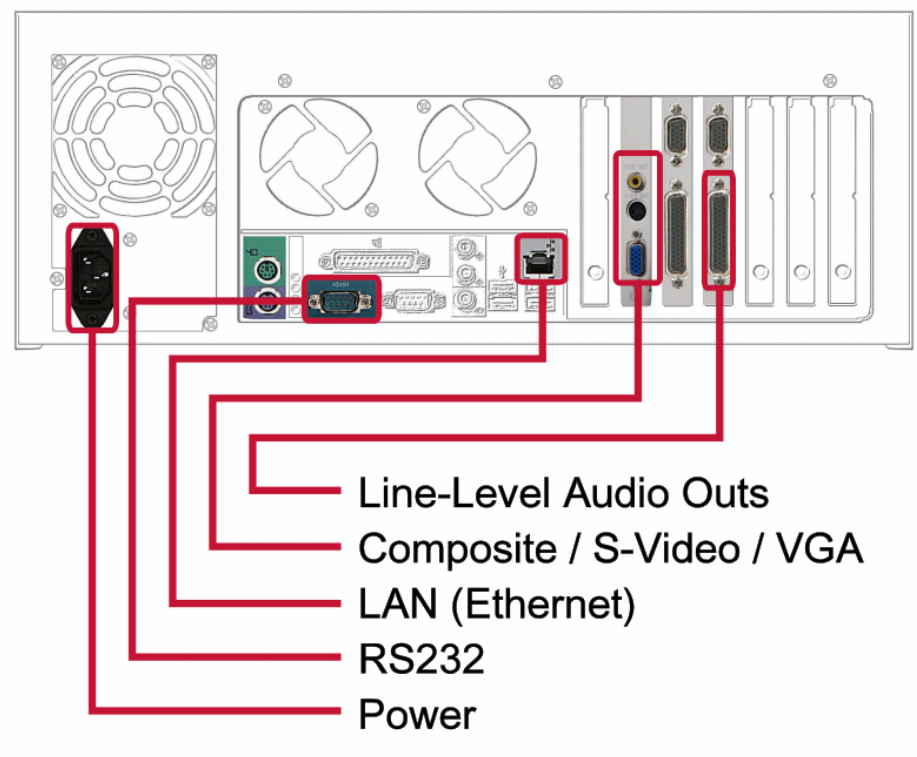

Fig. 1(b): iDyl™ Rear Panel Connections

Note: Ensure iDyl™ is fully switched off at the plug before connecting.

1) Connect audio outputs
   The iDyl™ comes with 1 large D-pin plug for every 4 rooms to be sourced. Using the RCA breakout cables supplied, connect between the iDyl™ and multi-channel amplifier.

Fig 2: Gold plated RCA break-out cable

2) (Optional): Connect iDyl to LAN via Ethernet port.

3) Connect power to iDyl and turn on.

2.3 Turning on/off the iDyl™

Turning on

The iDyl™ can be turned on from the power button located on the front panel. It will take from 1 – 3 minutes to power up and come to a ready state, depending on the amount of media stored on the hard-disk.

You will hear an audible alert (a bird call) in each zone whenever the iDyl™ has finished initializing.

Turning off

The iDyl™ can be turned off via the power button the front panel.

Resetting

Under normal operation, the iDyl™ can be left permanently on. However, in some cases, it may be necessary to restart the iDyl™. This may be because the Media Server has become unresponsive to user command or input. In this unlikely event, either of the below methods may be used (method 1 is the most convenient, being done via Room Commander).

1. In normal cases, the iDyl™ can be restarted remotely from any Room Commander, under 'Options->Settings->Commands->Reboot Media Server'.

2. By turning the iDyl™ off and on using the front panel-located Power Button.

2.4 Network Connectivity

To benefit most from the iDyl and the ability to manage media and control it from a family PC / PDA, the iDyl™ should be connected to a local area network (LAN).

The iDyl™ comes pre-configured to acquire an IP address via DHCP lookup. As such, it is plug-and-play when installing into an existing network.

It is recommended that the iDyl is configured and run with a static IP address. This can be performed via the iDyl™ Advanced Settings panel, (see page 42).

Network Configuration – Best Practices

The following are recommended guidelines for configuring your data network and devices that will run Room Commander software.

- Wireless hand-held devices that will be running Room Commander software should be configured with a static IP-address.
- Desktop computers running Room Commander software should be configured to acquire an IP address via DHCP.
- The WAP should be situated to give good wireless coverage across all zones sourced from the iDyl™ (2 or more access points, with one acting in repeater mode, may be required in larger installations).
- The WAP should be located away from strong sources of electromagnetic radiation (TVs, microwaves, etc.).

2.5 Infra-Red Remote Control

Keypad Layout

Number Keypad: For text entry and 'Hotkey' audio selection.

Cursor Keys: For navigating around the TV interface.

Audio Control Keys: For controlling the playback of the currently selected audio.

Macro Buttons: Assign specific commands to each button for customised operation.

Text Entry

While using the TV-interface, certain operations such as entering playlist titles or editing room names will require you to enter text via the IR remote control. This is easily performed, much like entering text via a mobile phone. Each number represents the letters appearing below it. Other commands are:

- Delete the previous character: [Cursor Left]
- To repeat the previous character, first push 0. So to enter the name 'Abba', you would press the number sequence:

  2,2,2,2,0,2,2,0,2,2,0,2.
- To create a space between words, push [Cursor Right]

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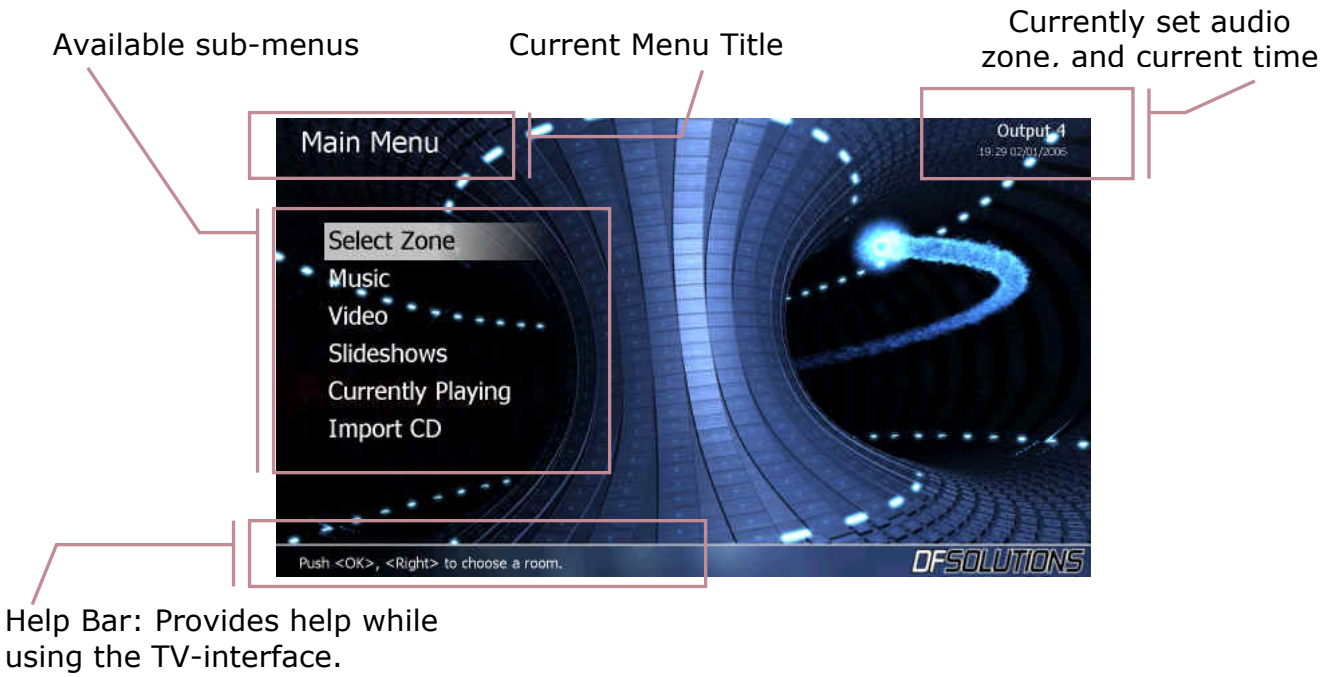
IR Remote Keypad Legend

Remote Key	Operation
Power	N/A
1	Hotkey '1', or text entry: ('/,/!/-)
2	Hotkey '2', or text entry: (a/b/c/A/B/C)
3	Hotkey '3', or text entry: (d/e/f/D/E/F)
4	Hotkey '4', or text entry: (g/h/i/G/H/I)
5	Hotkey '5', or text entry: (j/k/l/H/J/K)
6	Hotkey '6', or text entry: (m/n/o/M/N/O)
7	Hotkey '7', or text entry: (p/q/r/s/P/Q/R/S)
8	Hotkey '8', or text entry: (t/u/v/T/U/V)
9	Hotkey '9', or text entry: (w/x/y/z/W/X/Y/Z)
0	Hotkey '0', or 'repeat previous character'
Mute	Mutes the volume in the current zone
Vol +	Increases the volume in the current zone
Vol -	Decreases the volume in the current zone
Ch +	Acts as 'page up' in the browse menus, for rapid navigation of audio library.
Ch -	Acts as 'page down' in the browse menus, for rapid navigation of audio library.
Cursor Up	Moves the cursor up
Cursor Down	Moves the cursor down
Cursor Left	Moves the cursor left; [Delete] in text entry mode
Cursor Right	Moves the cursor right; [Space] in text entry mode
OK	Selects or confirms the current option
Menu	Returns to the main menu of the TV display
Exit	Returns to the previous screen of the TV display
Play	Plays the current audio selection in the current zone
Pause	Pauses the current audio selection
Stop	Stops the current audio selection
Skip Previous	Plays the 'previous' track
Skip Next	Plays the 'next' track
Scan Left	Fast rewinds the currently playing song
Scan Right	Fast forwards within the currently playing song
Record	Used to initiate the CD import process
Red	Macro Button (see page 26)
Green	Macro Button (see page 26)
Yellow	Macro Button (see page 26)
Blue	Macro Button (see page 26)

3. Main Menu



The Main Menu is the default screen displayed upon start-up. From here you can access all the sub-menus required for operating your iDyl™.

1. **Select Room** (applicable to 2-zone and above models):
   The TV-interface can only control one zone at once. The current zone (in this case 'Room1', is displayed in the top-right corner of the screen). The currently controlled zone can be changed by pushing [Cursor Right].

2. **Music**:
   This menu allows you search and browse your audio library, and then to start playing the relevant audio selection (see page 14).

3. **Video**:
   This will open a new display where you can select and view pre-recorded digital movies (see page 31).

4. **Slideshows:**
   Create, edit and view slideshows of your digital photo collection (page 32)

5. **Currently Playing**:
   Once an audio selection has been queued to play via the 'Music' menu, this screen lets you see information regarding the currently selected audio.

6. **Import CD**:
   Manages the importing of audio CDs via the front-loading CD tray in the iDyl (see page15).

4. Music

4.1 Supported Audio File Types

The iDyl™ uses superior hardware digital technology to manage up to 16 independent audio feeds.
Each audio zone features 24-bit/96khz digital playback, technical jargon for 'crystal-clear, CD-quality audio'.

The following are the audio file types that the iDyl can process:

MP3

- An industry standard, compressed audio file format. MP3 files don't take up a lot of disk space, but the audio quality is slightly less than playing directly from a CD. Expect to be able to place over 3000 CDs on a 160GB hard-disk.
- Importing audio CDs from the iDyl in the MP3 format is slow (15 minutes per CD).

OGG

- A compressed audio file format that is becoming more common. OGG files offer better audio quality than MP3, and are slightly smaller in size than MP3 files at similar encoding rates.
- The iDyl™ supports OGG playback only.

WAV

- The industry standard uncompressed audio file format. Wav files are identical in quality to playing directly from a CD. Expect to be able to place around 300 CDs on a 160GB hard-disk.
- Importing audio CDs from the iDyl in the WAV format is very quick (4 minutes per CD).

WMA

- Microsoft audio format.

M4A

- Used by iTunes for your imported CD collection.

4.2 Adding Audio to the iDyl™

The iDyl comes with no audio or video files on the hard-disk. Therefore you will need to add audio to the iDyl™ before being able to experience it properly.

Audio can be imported to the iDyl™ via:

- The front-loading CD-tray on the iDyl™.
- From any networked, Microsoft™ compatible PC.

Adding Audio via iDyl™

Importing audio CDs directly to the iDyl™ is a straight-forward procedure.

Requirements: During the import procedure, the iDyl™ automatically accesses track information off the internet, via Freedb.org. An always-on connection to the internet isn't required for importing audio directly to the iDyl™, but without it individual track information entry via the IR remote will prove tedious and slow. If the iDyl can not access the internet via LAN, it is recommended to import CDs onto the family PC, then drag and drop across the network onto the iDyl™, for convenience.

iDyl™ has detected CD and downloaded track info.

Operation

1. Insert an audio CD into the CD-tray, and close the tray.
2. The iDyl™ then automatically detects the CD, and accesses track information off the internet.
3. The iDyl™ then imports all tracks, and returns the CD upon completion.

If the iDyl™ could not import the CD (track information un-available / no internet connection, etc), you will be asked to manually enter track and album information, as below.
In this event, you will need to ensure all fields have been filled out, then push <Record>. Until then you cannot initiate importing.

Final checking of entered track information before beginning the import process.

Adding Audio via Desktop Computer

This is the ideal method of uploading audio CDs and digital audio files to the iDyl™, due to its convenience, and the fact that manual interaction with the iDyl™ is not required (possibly located in a customised closet, attic, etc).

You can use any desktop audio software (such as RealOne Media Player/Microsoft Media Player/Music Jukebox etc) to import CDs and then transfer audios across a LAN to the iDyl.

In a LAN environment, the iDyl™ appears as a networked computer, and has a shared directory called Audio (accessed via Windows™ File Explorer at \\iDyl\Audio). Audio can be placed into this directory, and will be detected by the iDyl for listening to around all zones.

In the same way, music can be extracted from the iDyl for archiving purposes.

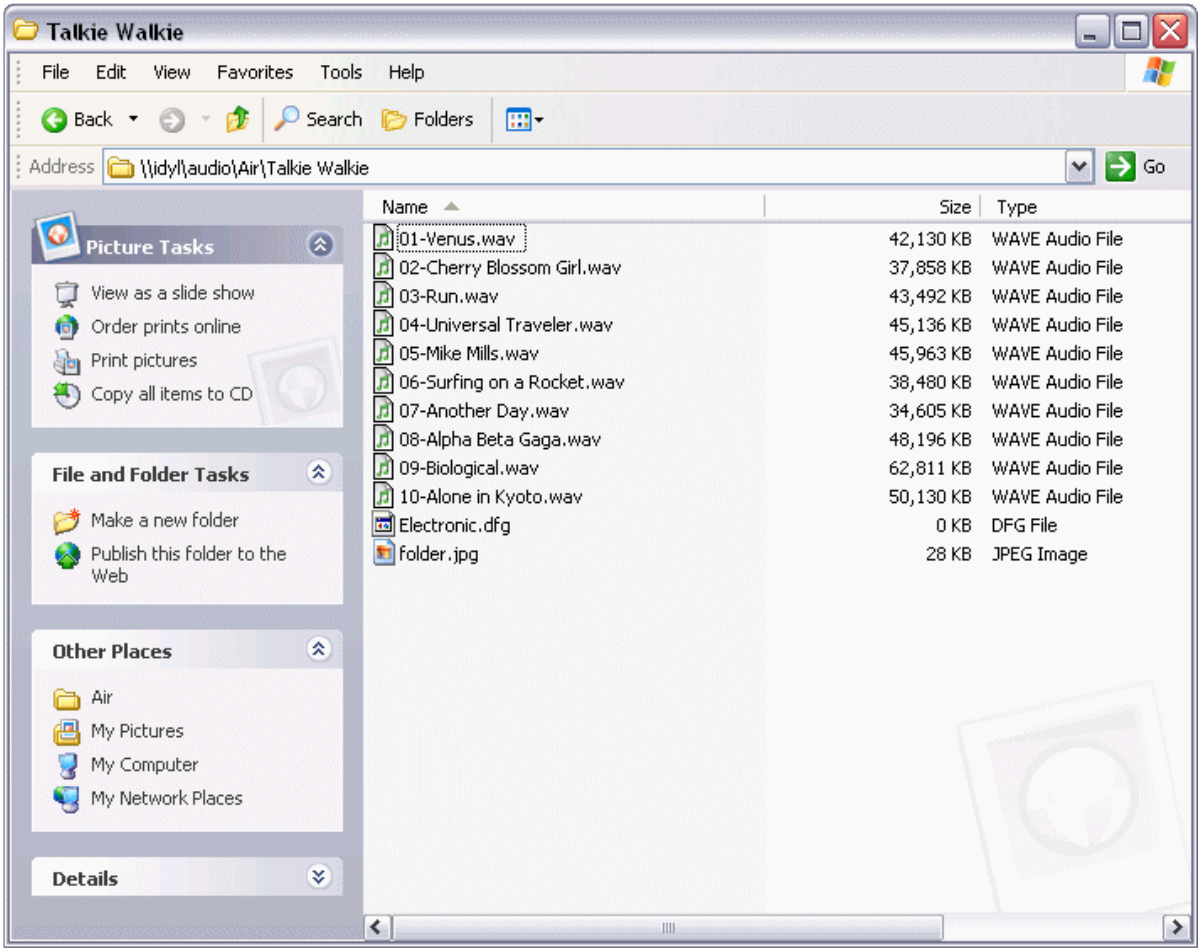
Digital Future Solutions does not condone intellectual property theft or the misuse of illegal, unlicensed audio files. Always check the license agreement of the media you will be importing into the iDyl™.

Adding MP3 / OGG Audio Files

MP3 / OGG Files contain track information (album / artist / genre / etc.) within the file itself. Therefore, where you put the file on the idyl is unimportant. However, organizing your audio library and placing tracks into folders containing Artists and Albums will make things easier to maintain in the long term.

Adding WAV Files

WAV Files offer CD-quality playback. However, this file format does not permit track information to be contained within the file. Therefore, the iDyl uses the location (subfolder) where the track is located to ascertain this information.


Talkie Walkie
File Edit View Favorites Tools Help
Back Search Folders
Address \\idyl\audio\Air\Talkie Walkie
Go
Picture Tasks
View as a slide show
Order prints online
Print pictures
Copy all items to CD
File and Folder Tasks
Make a new folder
Publish this folder to the Web
Other Places
Air
My Pictures
My Computer
My Network Places
Details
Name
Size
Type
01-Venus.wav 42,130 KB WAVE Audio File
02-Cherry Blossom Girl.wav 37,858 KB WAVE Audio File
03-Run.wav 43,492 KB WAVE Audio File
04-Universal Traveler.wav 45,136 KB WAVE Audio File
05-Mike Mills.wav 45,963 KB WAVE Audio File
06-Surfing on a Rocket.wav 38,480 KB WAVE Audio File
07-Another Day.wav 34,605 KB WAVE Audio File
08-Alpha Beta Gaga.wav 48,196 KB WAVE Audio File
09-Biological.wav 62,811 KB WAVE Audio File
10-Alone in Kyoto.wav 50,130 KB WAVE Audio File
Electronic.dfg 0 KB DFG File
folder.jpg 28 KB JPEG Image

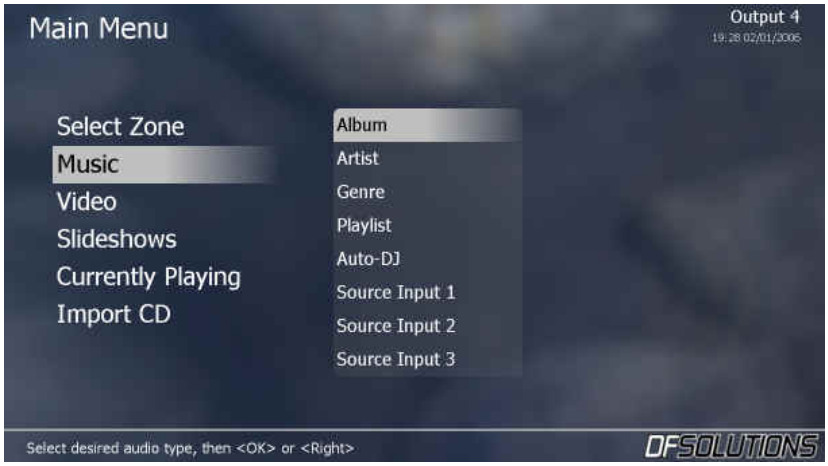
The above screenshot shows how WAV files should be stored on the iDyl.

- Under //idyl/Audio/, create a folder representing the Artist.
- Within this folder, create a folder representing the Album.
- Place the tracks here, along with a file with appendix '.dfg'. The filename is used to represent the Genre.
- Finally, track names should be of the form:
  xx-[Track Title].wav
  where*:*
  xx = Track number
  [Track Title] = Track Title

4.3 Browsing and Enqueuing Audio

Once you have placed audio onto the iDyl, choose '*Music'* from the main menu.

Select Audio Type



Select Audio Type: Choose what 'type' of audio to listen to.

This sub-menu lets you helps you choose the audio you would like to initiate. Available options are:

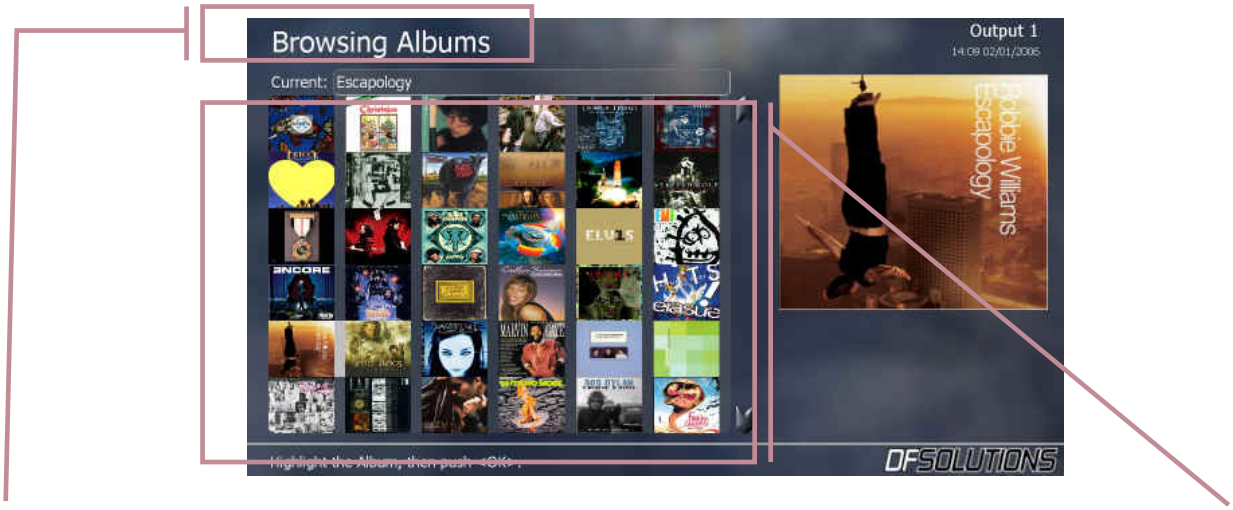
- **Album**: Clicking this will open a further sub-menu, where you can browse and play any album in your audio library.
- **Artist**: Browse all artists.
- **Genre**: Browse all genres.
- **Playlist**: Browse all playlists.
- **Auto-DJ**: Initiates Auto-DJ mode, a randomized selection of all tracks in your audio library (see page 20).

** Applicable to 4-zone output and above models:*

- **Source Input**: You can connect up to 3 external audio sources to the iDyl. Using this option, you can listen to any of these audio sources in any zone.

Browse Library

Selecting 'Album', 'Artist', 'Genre' or 'Playlist' from the Music sub-menu will open this new screen.



Title Bar:
Displays current library sorting.

'Sub Group' list:
Available options within the 'Group Type' selection, in this case a list of albums

From this menu you can browse your entire library, initiate audio, and manage your library (removing tracks / adding tracks to playlists / etc).

There are several ways to navigate this list:

1. Cursor Keys: Use the cursor keys to step around this grid.
2. Channel +/-: Use these 2 keys to jump and down this list 1 page at a time.
3. Quick jump (search functionality): Pushing the numbered keys 2 – 9 on your remote will jump to the letter associated with it. Ie. pushing number 2 repeatedly will jump to the first album beginning with 'A', then 'B', then 'C'.

- Once you have highlighted your Chosen album/artist/genre/playlist, confirm this by pushing <OK>.

- An '*Available Tracks'* grid will appear, showing all tracks found within this audio selection (see overleaf for image).

At this point you can either:

- Click <Play> to enqueue and play the audio selection as specified.
- Click <OK> to bring up a list of options for this track and selection:

Selection Options:

- Play.
- Add to Playlist: Clicking on this will bring up a further screen for adding tracks to existing or new playlists (see page 21).
- Assign Hotkey: Clicking on this will bring up a further menu (see page 25).
- Clicking on Delete will PERMANENTLY delete the highlighted audio track from the iDyl. A confirmation prompt will appear to prevent mistakes.

4.4 Auto-DJ Mode

Auto-DJ is a randomized mode where tracks from around your library are played endlessly.

With the ability to store over 40,000 MP3 tracks on a 160 GB hard-disk, the Auto-DJ mode turns the iDyl™ into your very own personalized radio station!

Auto-DJ Mode

While in the "*Main Menu*"->*Music* sub-menu, you will see an option called '*Auto-DJ'*. Selecting this option will take you straight to the 'Control Audio' screen, as shown above.

Whilst in *Auto-DJ* mode, only 3 tracks will appear, and these will cycle at random through your entire audio collection.

4.5 Playlist Management

Selecting and playing a Playlist is a simple procedure and is performed from the '*Select Audio'* screen (see '4.3 Browsing and Enqueuing Audio', page 15).

To add tracks to a playlist, first browse your Albums/Artists/Genres.
Select the track you want to add, and select *Add to Playli*st, to open this screen:

Playlist Sub-Menu: Default appearance

Creating a playlist

Note that above we are trying to add the track 'Everyday I love You Less and Less' from the album 'Employment' to a new playlist.

Let's add this track to a new playlist called 'Fave Tunes':

1. Highlight the option '<New>….'
2. Push Enter to enter 'Text Entry Mode' (note the highlighted row colour change). We can now use the remote keypad to enter the name of the new playlist.

Entering 'Text Entry Mode'

3. Click OK when you have finished typing, and create the new playlist.

Adding a track to an existing playlist

- Now we can highlight the name of this new playlist and push 'OK'. The audio track is now added to the playlist.

New playlist added

- Tracks can also be inserted at a specific position within the Playlist, assuming there are already tracks contained within. To do this, use <Right> to navigate into the current tracks within the playlist, select the existing track that the new track should appear *before*, and push <OK>.

Adding a track to the middle of an existing playlist

Removing a track from a playlist

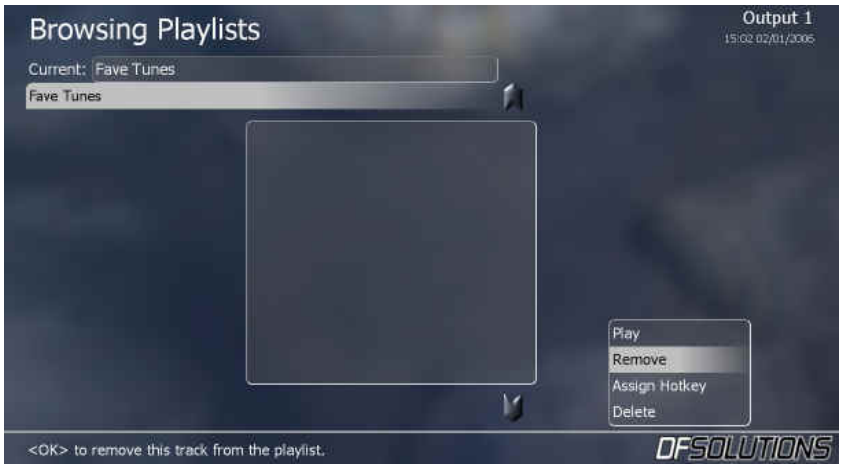
- This operation is performed from the '*Browse Playlists*' menu.

Deleting a track from a playlist

- Using the remote control cursor keys, first select 'Playlists', then the playlist, then the track to delete (in this case 'Turn to Stone'). Now highlight 'Remove', and click OK on the remote.
- The track will be removed and the screen updated to reflect the change.

Deleting a playlist

- This operation is performed from the 'Browse and Play Audio' menu.
- It can only be performed on an EMPTY playlist.

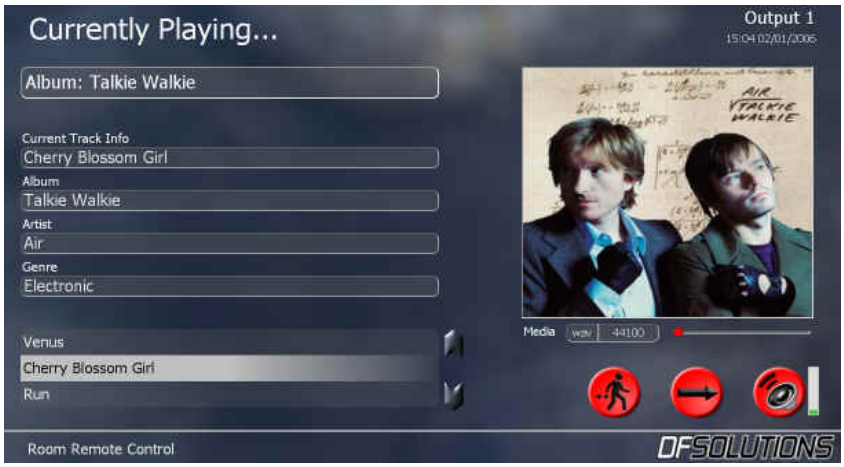


Deleting an empty playlist

- Select the playlist to delete, then highlight 'Remove', as above.

Click <OK> on the remote, and the playlist will be deleted, and the screen updated.

4.6 Controlling Audio



'Currently Playing…' Sub-Menu

Once an audio selection has been enqueued, the 'Currently Playing…' sub-menu provides detailed information about the current audio selection and playing track.

The main features of interest include:

- Track list: Shows all songs enqueued under this audio selection (ie. the Album 'Talkie Walkie).
  You can navigate this list using the up and down Cursor keys and choosing a track by pushing 'OK'.
- The 'Current Track Info' shows detailed information regarding the current track, including encoding information at the bottom.
- A volume meter shows you the current volume in this audio zone.
- A playmode icon denotes which mode is currently selected. Available playmodes are:

- Shuffle (random) mode

- Once: Plays all tracks, then stops.

- Plays all tracks sequentially, then repeat from 1st track.

The playmode can be changed using your remote control. Push <Cursor Right> until the Playmode icon is selected. Then push <Cursor OK> to change. *Note the playmode can not be changed while in 'Auto-DJ' mode.*

-

  Send Audio To (applies only to 2-zone and above models): With this button, you can quickly 'duplicate' the current audio selection to a zone of your choosing.

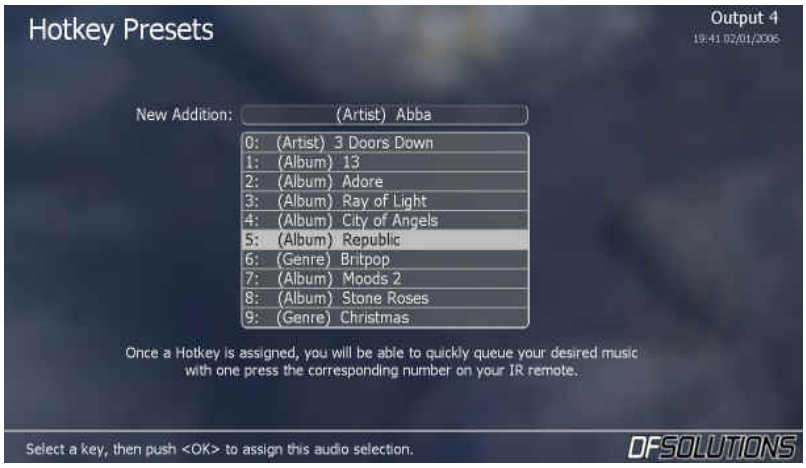
4.7 Hotkeys

Q: What are 'Hotkeys'?

A: Say you regularly listen to small number of audio selections or albums. Also, you don't want the hassle of having to access and navigate through the TV-interface every time. You just want a quick and simple way of playing music as quickly as possible.

This is what Hotkeys were designed for. Simply assign up to 10 favourite audio selections (albums, artists, genres or playlists) to a number on your IR remote control.

Then it's a simple one-touch operation in playing music, by pushing any of the keys, 0 thru 9. You then have full audio control using the Play/Pause/Stop/Skip buttons on your remote, removing the need for the TV-interface if you don't want it.


Hotkey Presets
Output 4
New Addition:
(Artist) Abba
0: (Artist) 3 Doors Down
1: (Album) 13
2: (Album) Adore
3: (Album) Ray of Light
4: (Album) City of Angels
5: (Album) Republic
6: (Genre) Britpop
7: (Album) Moods 2
8: (Album) Stone Roses
9: (Genre) Christmas
Once a Hotkey is assigned, you will be able to quickly queue your desired music with one press the corresponding number on your IR remote.
Select a key, then push <OK> to assign this audio selection.
DFSOLUTIONS
Hotkey Sub-Menu

You access the Hotkey sub-menu from within the 'Select Audio' sub-menu.

As you can see, the above screenshot shows several different audio selections have been pre-assigned to various numbers on the IR remote control. We are currently trying to assign all tracks by the artist 'Abba' to a key. To do this:

- Use the Cursor up and down keys to highlight the desired number.
- Push 'OK': The new album will now appear in the highlighted row.

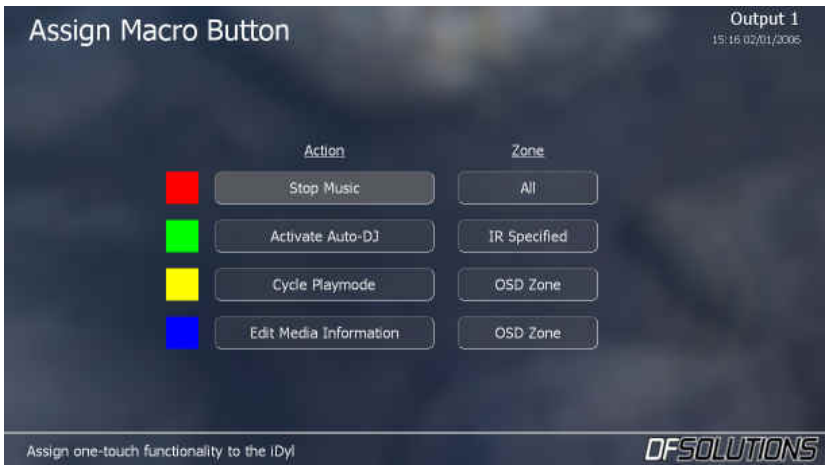
From now on, pushing the number 5 (whilst NOT in text-entry mode) will automatically start this selection playing in the currently selected audio zone.

4.8 Macro Keys

Whilst using the iDyl via the IR remote control keypad, you might find yourself regularly performing a certain command sequence that takes a lot of key pressing and menu switching. Or you would like to be able to quickly control the iDyl without having access to the iDyl TV display.

This is where the coloured Macro keys can come in handy. Appearing as the 4 coloured buttons at the bottom of your remote control, you can assign unique functionality to each key, so you can simplify and fine-tune the operation of the iDyl.

Coloured Macro Buttons



Assigning Macro Functionality Sub-Menu

The menu for assigning customised actions to the macro buttons is accessed via the Settings Menu.

For each coloured button, there are 2 highlight-able options: Action and Zone. Action denotes the command that is to occur when you pushing the corresponding button. Zone denotes which audio zone it will affect.

Available Macro Actions

- Activate Auto-DJ: Initiate Auto-DJ mode in the target zone(s).
- Stop Music: Simulates the stop button push in the target zone(s).
- Control Room: Simulates going to the Main menu, and pushing right until the selected room has been changed as desired.
- Jump to Control Audio: Jumps the TV-display to the 'Control Audio' sub-menu
- Cycle Playmode: Changes the playmode for the target zone (once, random, repeat).

Available Macro Zones

The zone can not only be set to any room id, but it can be set to 'All', or 'Current'. This can be used to further customise the operation of the iDyl.

5. DVD On-Demand Jukebox

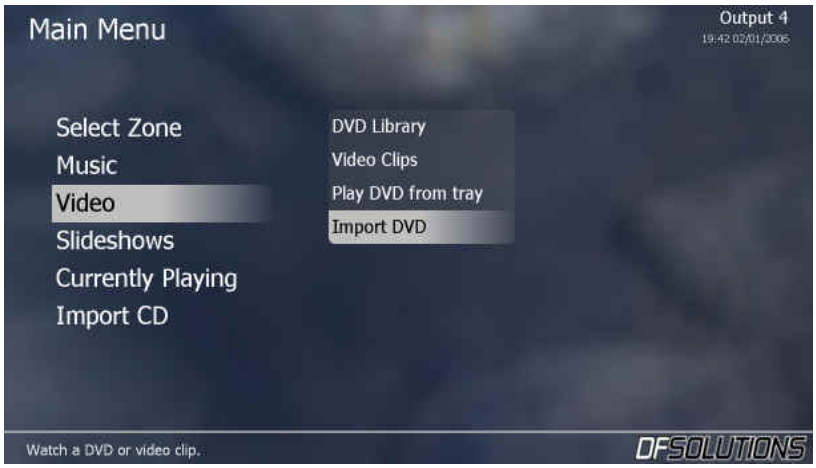
The iDyl™ is the last word in digital video entertainment. Your entire DVD collection can be added to the iDyl™ for instant playback, either via iDyl™, Video Nodes or other playback devices, providing a truly powerful multiroom video solution. So while you watch a DVD in the front room, someone else could be watching a different DVD in the kitchen, all accessing the same centralized content.

5.1 Adding DVDs to the iDyl™

5.1.1 Importing via iDyl™

> The iDyl as standard can only import unencrypted DVDs (ie. created in personal DVD authoring software). Importing of commercial DVDs is only available in world regions where laws permit. Please see your dealer for more information.
>
> Digital Future Solutions does not condone intellectual property theft or the misuse of illegal, copyrighted files in any way. Always check the license agreement and laws of the country you are in before performing these operations.

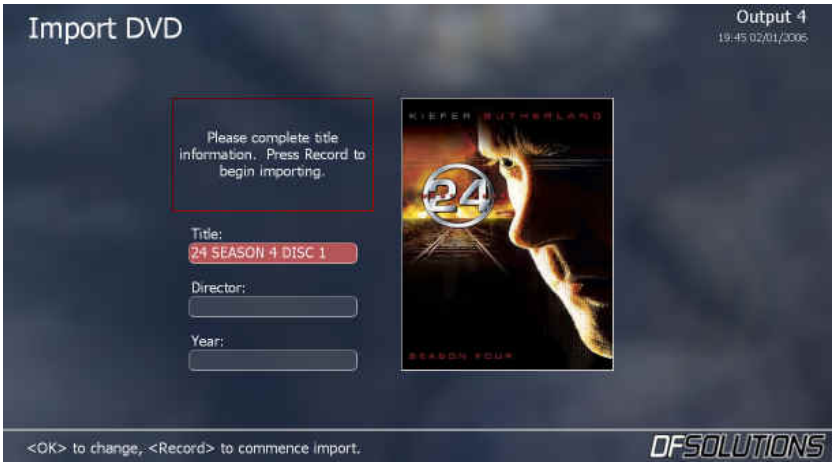
To import a DVD via the iDyl™, insert the DVD, then access the *Import DVD* menu option:



5.1.2 Import DVD Menu

After inserting the DVD, the iDyl will detect the title of the disc, and attempt to download cover for this (LAN-based internet connectivity required).

> NB: If the iDyl cannot download cover art, you may edit the Title field, and retry by using the cursor keys to highlight the cover art place-holder, and pressing <OK>.
>
> You may also use the Room Commander software for desktop PCs to edit this information at a later date.



Import DVD Menu

At this point you may also enter Director and Year information, which will be displayed when browsing the entire DVD library.

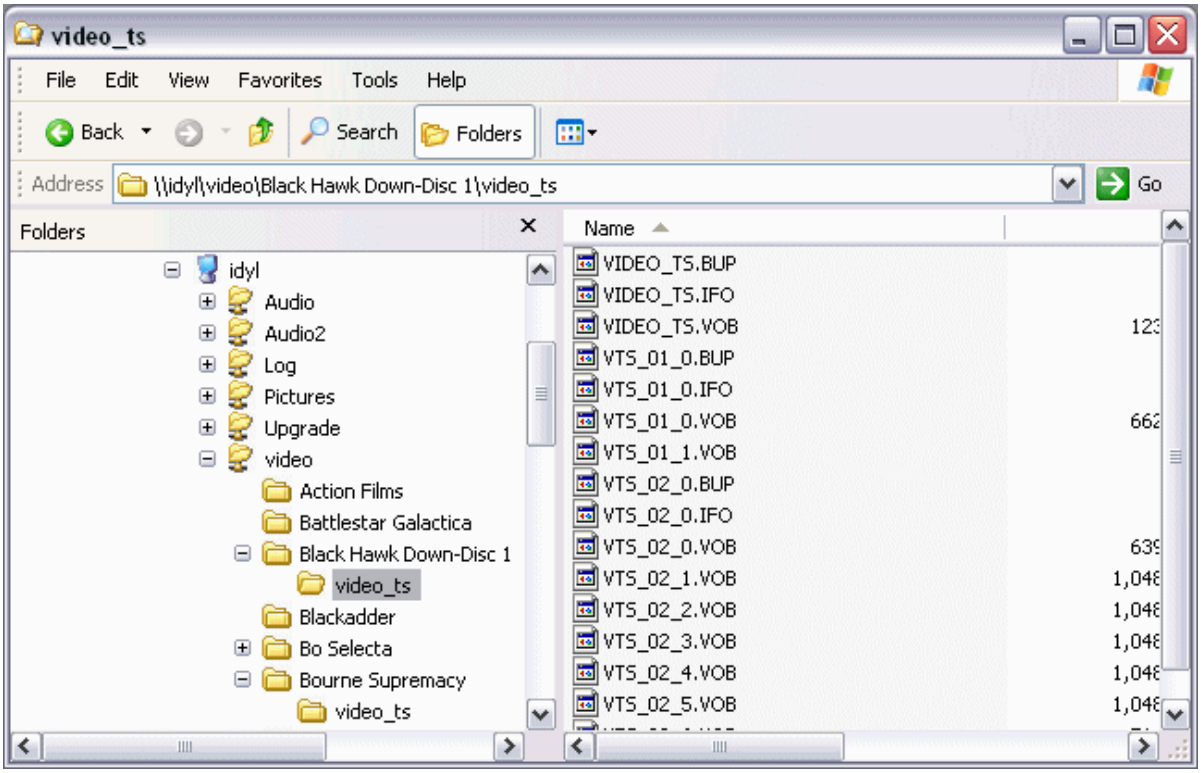
When you are ready to begin, press <RECORD> on the remote.

NB: Importing a DVD can take up to 30 minutes. Please be patient.

5.2.1 Copying across a LAN

DVDs can also be copied directly to the iDyl from your home PC.

DVDs have a standardised structure to the data contained on them. Video and audio content are stored within a 'VIDEO_TS' subfolder. This folder should be copied to the iDyl, of which an example is shown below. **Failure to keep to the folder hierarchy as shown below will result in potential failure to detect the new DVD by the iDyl.**



5.1.1 DVD Import Service Providers

External firms can also be contracted to implement the labour and time intensive task of importing your entire DVD collection to the iDyl™. Please contact DF Solutions for recommended firms.

5.2 DVD Storage Capacity

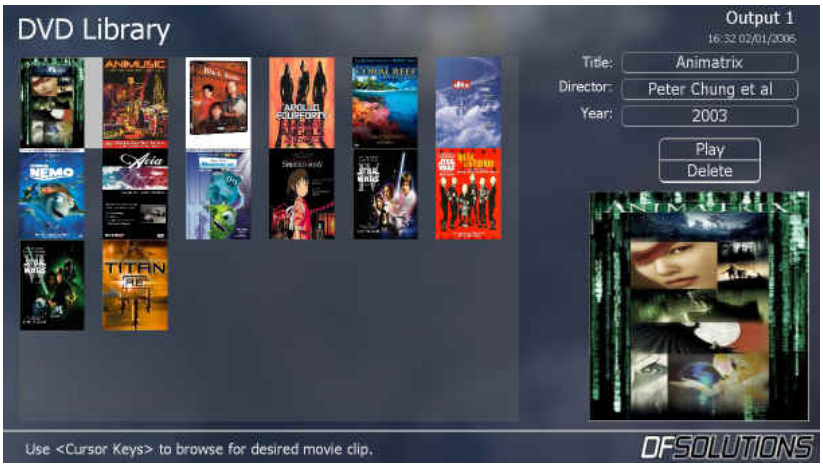
The number of DVDs you can put on an iDyl™ depends on the size of its hard-disk, the amount of data on the DVD and how much space is already taken up with CDs and digital pictures.

Estimated capacities on an empty iDyl are as follows:

iDyl Hard-disk size	Est. DVD Capacity
160GB	24
300GB	45
400GB	60
800GB	120

5.3 Browsing your DVD Library

From the Main Menu, select '*Video'*, then '*DVD Library'*. This will open the following interface:



Browsing your DVD Library

The screen is broken up into 3 distinct sections:

- DVD Library: The left hand side shows you all DVDs currently available. You can scroll through these using the Up and Down cursor keys on the remote.
- Options: You can either play or delete a DVD from the iDyl™. You will have to click *Delete* twice to prevent accidental deletion of a DVD.
- DVD cover art and DVD information: When you import a new DVD into the iDyl, you can use the cursor keys to highlight the DVD cover art placeholder, and then click <OK> to have the iDyl™ connect to the internet and download suitable covers. The iDyl™ uses the text within the 'Title' field to search online. If the iDyl™ can't find any cover images, you may wish to change this 'Title' field, and redo the download to try again.

5.4 DVD Control

During playback of a DVD, the remote has the following controls:

IR Remote Button	Function
Play/Pause	Pauses or resumes playback
Stop	Stops playback and returns you to the DVD browse menu. The next time you play the DVD, playback will resume at the point you left off.
Exit	Same as Stop
Menu	Go to the DVD menu
Cursor Keys	DVD menu navigation
Macro Red	Cycles DVD Audio Tracks
Macro Green	Cycles DVD Subtitles
Macro Yellow	Cycles available Aspect Ratios
Macro Blue	Display/Hide the screen adjust overlay, for adjustment of contrast/ brightness/gamma/hue/etc.

6. Digital Video Playback

As well as DVDs, the iDyl™ can also playback a wide variety of digital video clips and movies.
Compatible file-types include: .mpg, .avi, .wmv, .mpeg, .divx, .asf, .qt, .mov

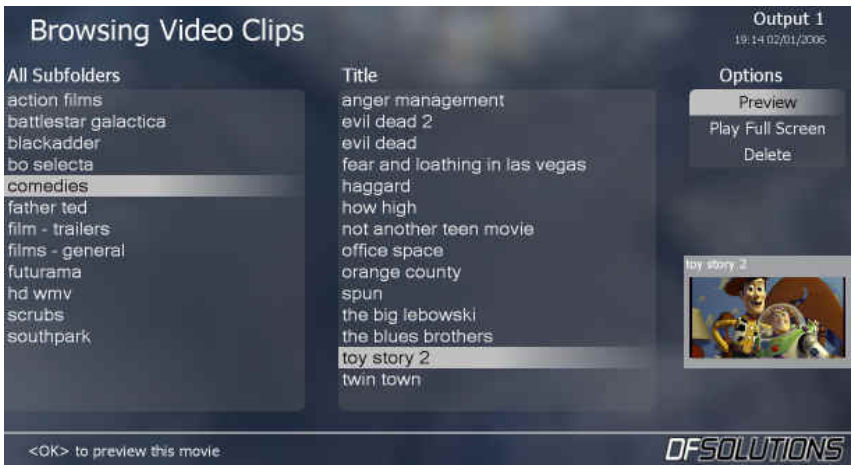
6.1 Adding digital video clips to the iDyl™

When connected to a LAN, there is a 'shared folder' on the iDyl at \\idyl\video.

Within this top-most folder, you can create and name sub-folders to store clips in well-sorted locations.

6.2 Browsing videos

From the *Main Menu*, select "*Video*", then "*Video Clips*". This opens a new screen, as below.



Browse and playback a movie clip.

There are 3 main sections on this screen. The currently selected section will have a dark background. You can navigate between these sections using the <Left> and <Right> keys on the remote.

All subfolders: This section shows all the sub-folders under the shared folder '\\iDyl\Video'. Browsing through these folders will let you see the video contained within.

Folder Contents: This section shows all video clips contained within the currently selected *Subfolder*.

Options: Upon selection of a video clip, you can play it in either 'Preview' or 'Full Screen' view, or delete the video.

6.2 Playing a video

Selecting 'Preview' within the 'Clip Options' menu will display the video in a captioned window as below.

7. Slideshows

Use the iDyl™ to store all your digital pictures on a single centralized file server.

You can then benefit from the ability to easily create slideshows for playback on your TV or digital display device.

7.1 Creating a Slideshow

From the Main Menu, selecting 'Slideshow' opens a sub-menu where you can create and select from existing Slideshows. To create a Slideshow, highlight <New…>, then push <OK> to type in the name using the IR remote keypad.

Click <OK> and enter a name for your slideshow.

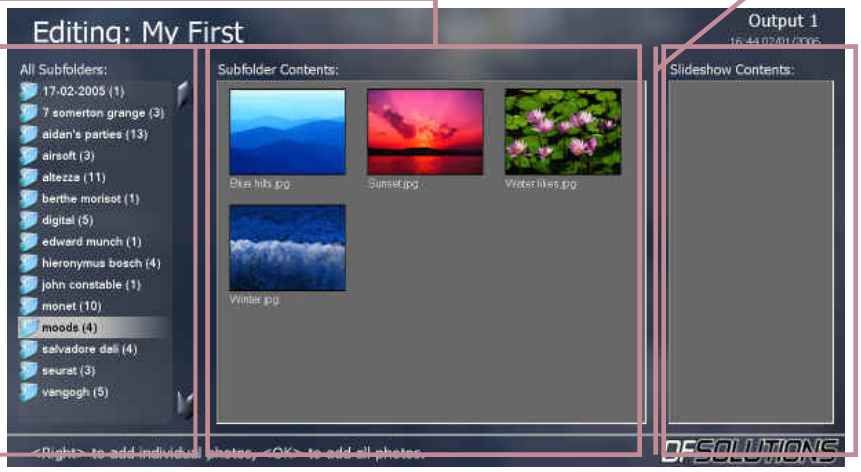
Once you have entered or selected a slideshow, you will be presented with applicable options.

7.2 Editing and adding to a Slideshow

Selecting "Edit" from the Main Menu, will open the 'Editing Slideshow' screen, where you can browse all digital images located on the iDyl, and add/remove them to/from the currently selected Slideshow.

Title Bar:
Displays current Slideshow.

'Subfolder' contents:
Available pictures within the current subfolder selection



Browse, add and remove photos from your slideshow.

Shows all subfolders below \\iDyl\Pictures

Lists all pictures contained within the current Slideshow.

Using < Left> and <Right> on the IR remote, you can navigate amongst the 3 main grids on this screen. They are:

All Subfolders: Scroll up and down in this list to view the pictures within this folder.
Clicking <OK> on a folder will *add ALL* images within this folder to the current Slideshow.
Click <Right> to browse individual pictures within this folder.

Subfolder Contents: All valid images within the current folder are displayed in this grid. Clicking <OK> on an image will *add* it to the Slideshow.

Slideshow: This list shows all images in the current Slideshow. Clicking <OK> on an image will *remove* it from the Slideshow.

8. Settings

The iDyl™ has several Settings screens, containing sub-menus for configuring various aspects of your iDyl™ Multiroom Media Server.
In order to prevent casual access, or changing of critical configuration parameters, you must access the various Settings screens using special 'key codes'.

You can access these key codes at any time, and they will take you to the respective on-screen menu:

Hidden Key Code	Settings Screen
<Power>, then <1>	Jump to 'Basic Settings' screen
<Power>, then <2>	Jump to 'Advanced Settings' screen
<Power>, then <3>	Jump to 'Configure Source Inputs' screen
<Power>, then <4>	Jump to 'Configure Web Interface' screen

How to access hidden Settings screens

8.1 Basic Settings

Settings menu

The Basic Settings screen provides access for configuring Audio/Video and miscellaneous setup options.

- **Audio Settings**: (See page 36)
- **Visual Settings**: (See page 38)
- **Functional Settings** (see page 39)
- **Change Current Room Name**: As described on page 13, the iDyl™ TV-interface can only control one output audio zone at once. The currently controlled room is always displayed in the top-right corner of the screen. The room names are defaulted to 'Room1', 'Room2' and so-on. These

can be changed to more meaningful zone descriptions, such as 'Study' and 'Conservatory'. To change the room name for the current zone:

Push <OK>, then enter the new name using the number keypad on the IR remote. When finished, push <OK>.

NB: The room name will persist if the iDyl is rebooted.

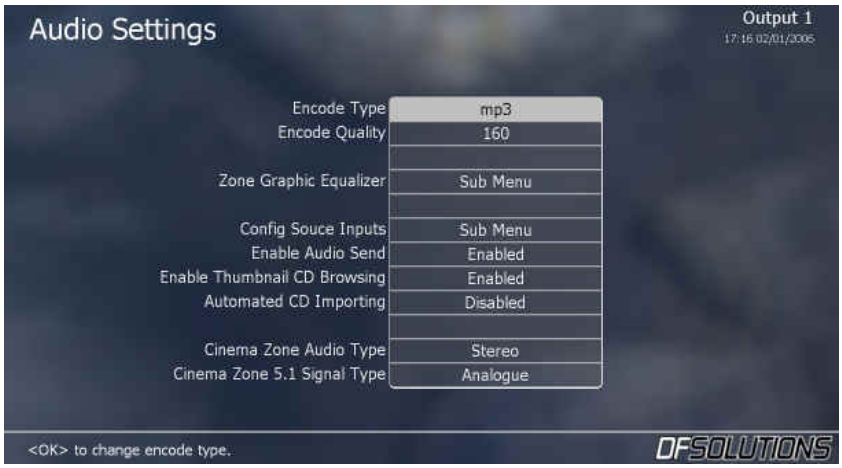
- **Assign Macro Buttons**: This button displays the 'Macro' screen, for assigning customized commands to the coloured buttons on your remote. See page 26.

- **Manage Networked Folders**: The iDyl™ not only plays digital media located on its hard-disk. It can also access and playback media located on external, networked hard-disks and PCs. Click <OK> to open this sub-menu.

- **System Info**: This will display a screen showing useful information related to the status of the iDyl™, including free disk space and version info.

- **Reset This Unit**: If the iDyl™ becomes unresponsive or does not seem to be working properly, it can be rebooted to restore normal operation. This button will perform this operation.

8.2 Audio Settings



This screen lets you configure various aspects relating to audio playback and encoding from the iDyl™.
Using the cursor keys, you can move up and down this list in order to adjust the various options.

- **Encode Type**: This sets how audio tracks will be stored on the hard-disk when importing audio CDs via the CD-tray.
  Push <Cursor Right> on the remote to cycle between the various encoding types (WAV or MP3).

- **Encode Quality**: This sets the quality of the audio tracks imported.
  Better quality means files will take up more hard-disk space.
  WAV files are uncompressed, so this field is ignored.
  When encoding as MP3, this field has the following options:
  - 160: Medium Quality
  - 192: Medium-High Quality (recommended).
  - 256: High Quality
  - 320: Ultra-high quality

  When encoding as MP3, we recommend 192, which offers high audio quality coupled with relatively small file sizes on disk.

- **Graphic Equalizer**: This button opens the graphic Equalizer setting menu. Each audio zone has an independent graphic equalizer, which can be adjusted to achieve optimum audio characteristics.

  NB: The graphic equalizer settings will persist if the iDyl is rebooted.

- **Config Source Inputs** (Applies only to 4-zone and larger idyls): Opens a sub-menu to set each of the 3 source audio inputs into the iDyl.

- **Enable Audio Send** (Applies only to 2-zone and larger iDyls): Hides/Shows the '*Send Audio'* icon from the '*Currently Playing'* screen.

- **Automated CD Importing**: When inserting an audio CD into the iDyl™, the iDyl automatically connects to the internet and attempts to download track information and CD cover art. The iDyl™ then waits for the user to

confirm this information retrieved, and to manually initiate the import by pushing the <RECORD> button on the IR remote. If *Automated CD Importing* is enabled, the iDyl will not wait for the user to manually push <RECORD>. The disadvantage of this is that if the iDyl can not retrieve track information from the internet, the CD will be tagged with default information and appear in his Album Library as:

'Album 2005-10-24 16:35'

- **Cinema Zone Audio Type**: Zone 1 of the iDyl offers 5.1 capable audio outputs, whereas zones 2 and upwards are stereo. This option can specify that Zone 1 outputs audio as stereo, or 5.1 channel.

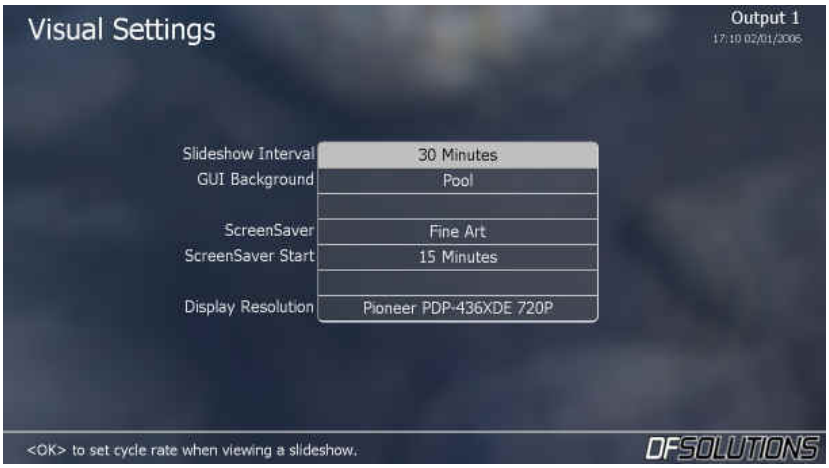
- **Cinema Zone 5.1 Signal Type**: When Zone 1 is configured to output 5.1 channel audio, this option can specify whether the 5.1 channels is output as either:

    - Analogue: Via 3 x 3.5mm stereo jacks

    Or

    - Digital: Via optical TOS connector

8.3 Visual Settings



This screen lets you configure various aspects relating to the visual display and video/picture functionality.
Using the cursor keys, you can move up and down this list in order to adjust the various options.

- **Slideshow Interval**: When viewing a slideshow on the iDyl™, you can choose the time between images. Options range from 5 seconds to 24 hours. Use <Cursor Right> to select.

- **GUI Background**: The TV-interface comes with 3 standard graphical schemes. The current theme can be changed by pushing <Cursor Right>.

- **Screensaver**: Any pre-defined Picture Slideshow can be configured as a Screensaver. When not interacting with the iDyl via IR-remote, after the specified delay has elapsed, the slideshow will be initiated.

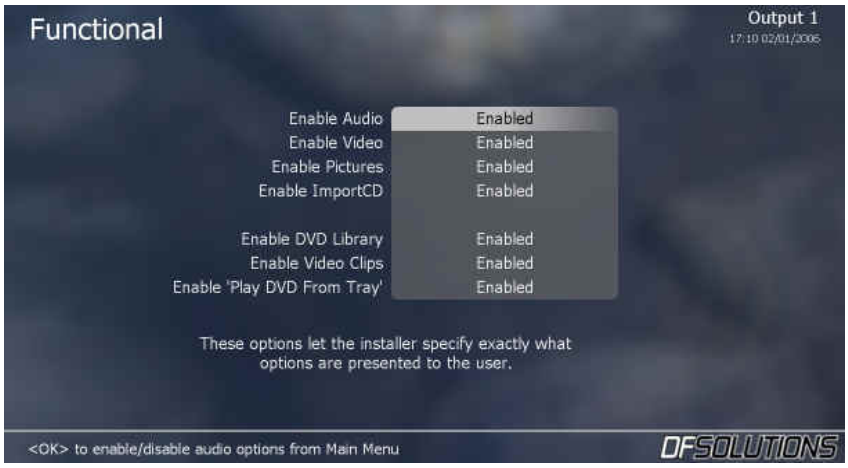
- **Screensaver Start**: Specifies the delay before activating the Screensaver.

- **Display Resolution**: Adjust the output resolution of the TV interface for your iDyl™ Multiroom Media Server. If your TV can handle larger resolution or even HD-formatted resolutions, you can change the resolution in order to make full use of the available area.

> NB: After changing the resolution, you have 15 seconds to hit the Power Button twice on the remote. This will signify that you can see the display and wish to accept the changes. After 15 seconds the display will revert to the original resolution.

8.4 Functional Settings

The screen provides a way to remove and hide certain functionality that the iDyl performs. For example, if the iDyl will be used purely as an 'Audio Server', video-related options can be removed from the main menu.



Functional Settings Menu

To remove a feature, simply highlight it, then push <OK> or <Right> on the remote to switch between *Enabled* and *Disabled*.

These settings will persist even after a reboot.

8.5 Manage Networked Folders

The iDyl™ can playback audio files located on networked (shared) folders. This has huge advantages in that there is virtually no limit to the amount of audio that can be made available around the house. As your media library grows, you can buy additional Network-Attached-Storage devices to store the additional media, or simply leave it on your family computer and configure the iDyl™ to communicate with this PC.

NB: Networked locations are referred to using the following standardized notation

\\[EXTERNAL MACHINE NAME]\[SHARED FOLDER NAME]

where:

- EXTERNAL MACHINE NAME = Refers to the name of the PC or NAS device.
- SHARED FOLDER NAME = Refers to the shared folder within the containing machine.

Eg: \\Perseus\Audio
\\DadsPC\My Documents\My Music

Using the 'Networked Media Folders' menu, you can add and remove Networked Folders.

Monitoring a networked folder from the iDyl

Manage Networked Folders
Output 1
19:08 02/01/2006
The iDyl can read and playback audio and video files located on networked PCs and hard-disks. To enable this, the iDyl must be told which networked folders to monitor.
Enter New Shared Folder to watch:
\\ Perseus \
ADD
Current Shared Folder List
Networked Folder Status
<OK> to enter sub-menu.
DFSOLUTIONS

Entering machine name

Step1: Entering machine name of networked location to access.

Use the numbered keys on the IR remote to enter the machine name (*or computer name*) that the shared folder exists on.

Step2: Enter folder name (or shared folder name) to access in second box.

Step3: Click 'ADD' to tell the iDyl to catalogue and make available any audio contained within this networked location (and all subfolders).

Manage Networked Folders
Output 1
19:09 02/01/2006
The iDyl can read and playback audio and video files located on networked PCs and hard-disks. To enable this, the iDyl must be told which networked folders to monitor.
Enter New Shared Folder to watch:
\\Perseus
\Audio
ADD
Current Shared Folder List
Networked Folder Status
Press <OK> to verify and add this networked folder
DFSOLUTIONS

Adding a networked folder to the iDyl's monitor list.

Current Shared Folder List

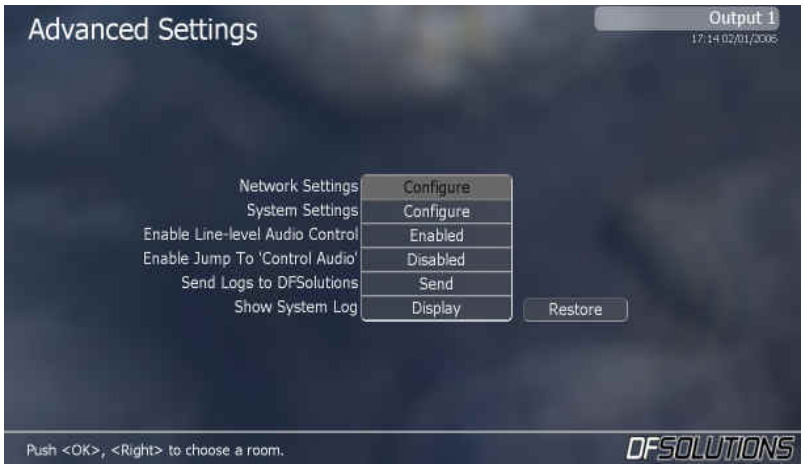
Once these 3 steps have been followed, the details you have entered will be transferred to the 'Current Shared Folder List'. This will give you feedback as to whether the networked location could be accessed.

Currently monitored networked locations can also be removed using this list.

Manage Networked Folders
Output 1
19:10 02/01/2006
The iDyl can read and playback audio and video files located on networked PCs and hard-disks. To enable this, the iDyl must be told which networked folders to monitor.
Enter New Shared Folder to watch:
\\
\
ADD
Current Shared Folder List
Networked Folder Status
\\Perseus\Audio
Alive
Select and press <OK> twice to confirm removal of networked folder
DFSOLUTIONS

This iDyl™ has 1 currently monitored network location.

8.6 Advanced Settings



Advanced Settings menu

The *Advanced Setup* screen contains system settings that should be adjusted only if the implications are fully understood.

Network Configuration: This sub-menu controls how the iDyl assigns itself an IP address, when connecting to a LAN via Ethernet cable (see page 43).

System Settings: This sub-menu has options for how the iDyl operates at a low level (use only if advised by DFSolutions technical support).

Enable Line Level Audio Control: If enabled, users can adjust the output volume of the iDyl™ via IR or similar control interface. If disabled, the iDyl™ defaults volume to maximum and is unresponsive to volume control. This is for installers that will be using external amplifiers for audio gain.

Enable 'Jump to Audio Control': If enabled, when the user plays an album via the 'Audio Browse' menus, the display will jump to the 'Currently Playing' screen.

Send Logs to DFSolutions: *Reserved for future use*.

Show System Log: This will display a new screen showing messages logged by the iDyl™ relating to its operation. This can be useful for installers and support staff in solving problems shoud they arise.

8.7 Network Settings

Network Configuration: If set to Auto, the iDyl will automatically attempt to connect to the network. Is set to Manual, you can change the following settings:

- **Auto (DHCP)**: The iDyl tries to allocate an IP address from a DHCP server located on the network. The subsequent IP address fields are ignored, and are non-editable.

- **Manual (Static)**: The iDyl uses the following fields (IP Address / Subnet / Gateway / DNS Server) to manually configure network connection.

  Using static configuration provides the following benefit:

  If using DHCP lookup, if the iDyl is restarted, its' IP address *MIGHT* change. Thus IP-enabled client remotes might get confused and will have to rediscover the new IP address of the iDyl. This is not an issue for DF Solutions remote software, but might be an issue for 3rd-party IP-enabled remote controls. Bottom line? Use a static configuration if possible, but is not essential.

- **IP Address**: If using Static network configuration, this specifies the local IP address. Edit using the IR remote control.

- **Subnet**: If using Static network configuration, this specifies the IP subnet. Edit using the IR remote control.

- **Gateway**: If using Static network configuration, this specifies the gateway (could be a router/broadband modem). Edit using the IR remote control.

- **DNS Server**: If using Static network configuration, this specifies the local DNS server. Edit using the IR remote control.

9. Appendices

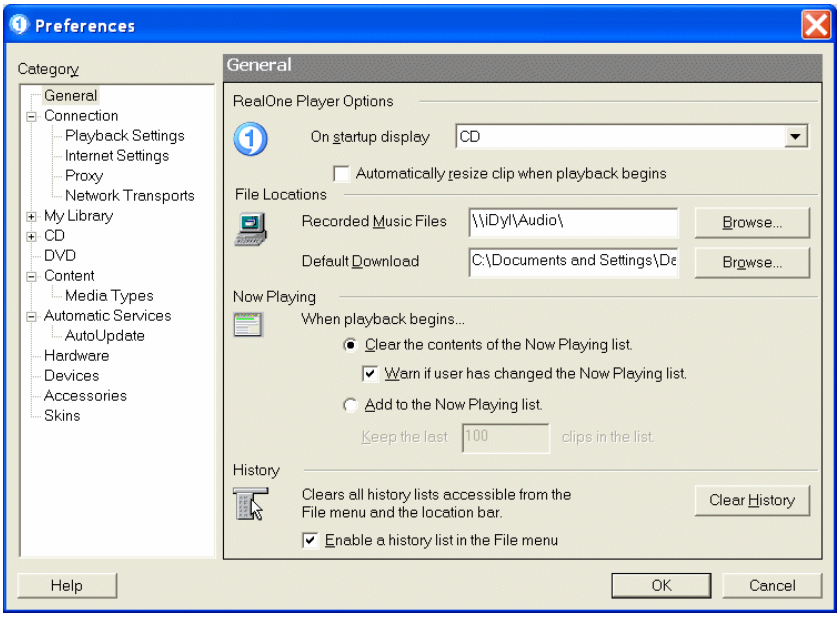
NB: Appendix A demonstrates how to configure RealOne Player to automatically store CDs directly to the iDyl.
However users aren't limited to this software. They are free to use whatever media player software they are most familiar with, such as iTunes or MusicMatch.

A: One-time Configuration of RealOne player

When configuring a networked PC to upload audio CDs to the iDyl™, the following steps should be carried out.

First, run RealOne player. Select Tools->Preferences from the top menubar, to open the preferences dialog.

1) Under 'General':
    a. Ensure 'On startup display' is set to "CD".
    b. Ensure 'Recorded music files' is set to \\iDyl\Audio.



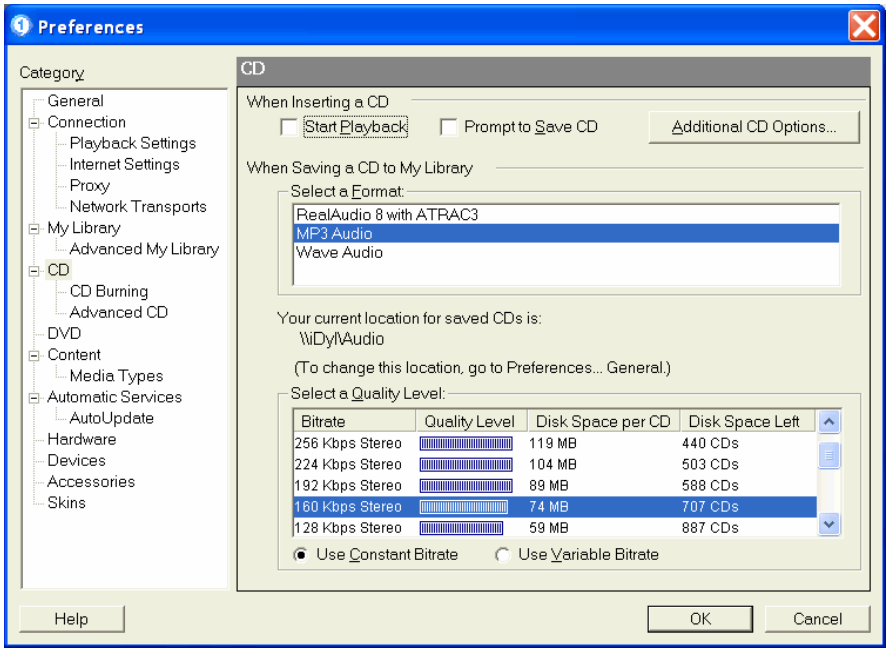
2) Under 'Connection':
    a. Under Bandwidth, ensure 'Normal' is set to the speed of your internet connection.
    b. Under Bandwidth, ensure 'Maximum' is set to "Office LAN".
    c. Under Online Status, select "Assume I am online".

3) Under 'CD', click 'Additional CD Options':
    a. Tick 'Get CD info online when a CD is inserted'.
    b. Untick 'Automatically start CD playback when saving a CD'.

c. Tick ‘When done saving, eject the CD’.
d. Click Ok.

4) Under ‘CD’:
   a. Deselect ‘Start playback’.
   b. Deselect ‘Prompt to save CD’.
   c. Under format, select ‘MP3 Audio’.
   d. Under ‘Select a quality level’, select your desired compression factor. (128 Kbps or higher is recommended).

Note: You may need to download an upgrade to enable recording of MP3s at 128 Kbps and higher.



Glossary

DHCP (Dynamic Host Configuration Protocol) server: This is a service available on certain network routers / WAPs. Its job is to give out unique IP addresses to devices that request them.

IP (Internet protocol) address: This is a unique code that identifies various devices across a network. In our case, the iDyl™, WAP and Room Commanders all must have their own unique IP address. IP addresses can be given to devices that request one via a DHCP service, or they can be assigned a permanent fixed (static) IP address.

MP3: A standard for compressed audio files. The iDyl is compatible with all forms and revisions of the MP3 standard.

PDA: Personal Desktop Assistant, commonly referred to as a 'handheld computer'. PDAs must be running Pocket PC 2003 in order to run 'Room Commander' software.

Room Commander: DF Solutions-supplied remote-control software. Room Commander refers to software running on a suitable PDA, or a desktop WinXP/2000 computer.

WAP (Wireless access point): This is a device that allows the iDyl to communicate with wireless 802.11 devices such as the Room Commander. The WAP will be connected physically to the iDyl using Cat5 network cabling.